

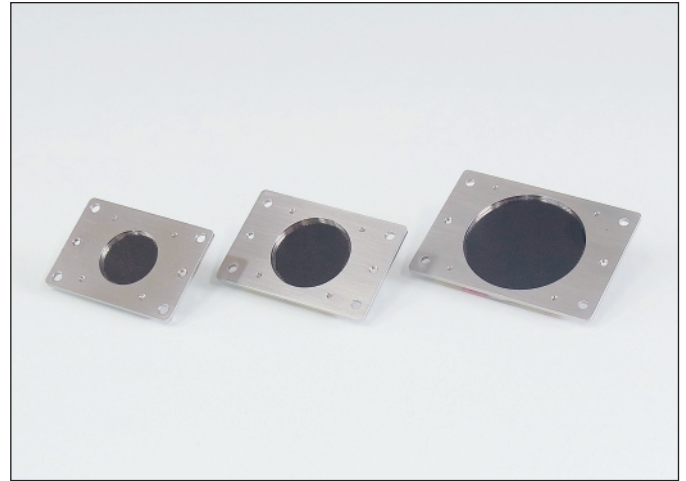
NEW

COMPACT MCP ASSEMBLY SERIES

F12334-11, F12395-11, F12396-11

FEATURES

- **Easy Replacement**
2 Connections (HV and Signal)
- **Suitable Installation**
- **Robust MCP**
- **Compact and Thin**
- **3 Choices of Effective Area**
 - F12334-11: $\phi 20$ mm
 - F12395-11: $\phi 27$ mm
 - F12396-11: $\phi 42$ mm



Left: F12334-11, center: F12395-11, right: F12396-11

OVERVIEW

HAMAMATSU offers NEW compact MCP assembly series.

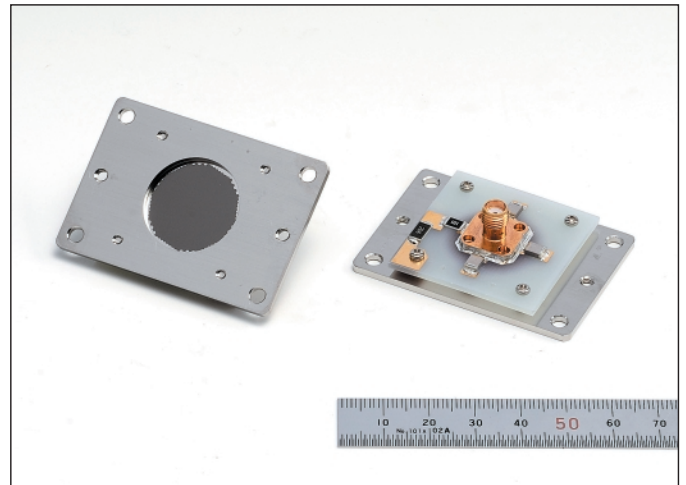
This assembly has enough time response characteristic for TOF (Time Of Flight) measurement and is useful for ion, X-ray or VUV-light detections.

Thin and flat shape makes it possible to install into the minimum space which is usually required from the viewpoint of mechanical design.

Furthermore, only 2-point electric wiring enables you to install and replace this assembly quite easily.

Custom assembly is also available. Please consult us about the suitable design for your need.

(optimum size, shape, installation, connection etc.)



F12334-11

CHARACTERISTICS

GENERAL

Parameter	F12334-11	F12395-11	F12396-11	Unit
MCP Channel Diameter	12			μm
Bias Angle	12			degree
Effective Area	φ20	φ27	φ42	mm
Assembly Outer Size	38 × 54	41 × 61	52 × 72	mm
Assembly Height Size	15.1			mm
Number of MCPs	2			—

TYPICAL ELECTRICAL CHARACTERISTICS (Vacuum: 1.3×10^{-4} Pa, at +25 °C)

Parameter	F12334-11	F12395-11	F12396-11	Unit
Gain (Min.) [Ⓐ]	1×10^6			—
Resistance [Ⓐ]	20 to 80	15 to 60	10 to 40	MΩ
Dark Count (Max.) [Ⓐ]	3			s ⁻¹ .cm ⁻²
Pulse width (FWHM) (Typ.)	1.5			ns

NOTE: [Ⓐ]At HV: -2.1 kV

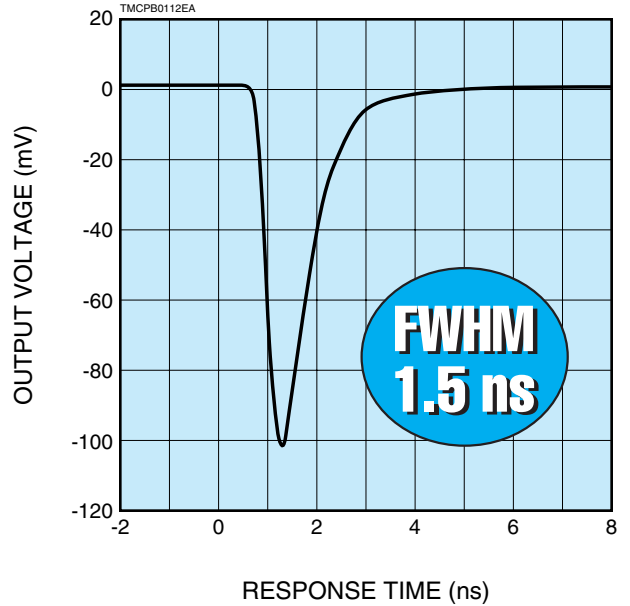
MAXIMUM RATINGS

Parameter	F12334-11	F12395-11	F12396-11	Unit
HV – SUBSTRATE	2.1			kV
Electric Potential at Each Terminal	HV: -2.1 Signal: GND			kV
Operating Vacuum Condition	1.3×10^{-4} [Ⓑ]			Pa
Ambient Operating Temperature	0 to +50 [Ⓒ]			°C

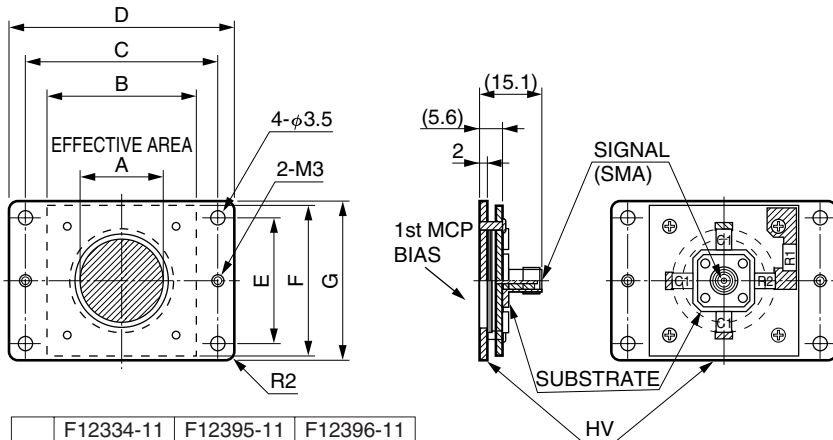
NOTE: [Ⓑ]Better vacuum than 1.3×10^{-4} Pa

[Ⓒ]Not allowed to be baked.

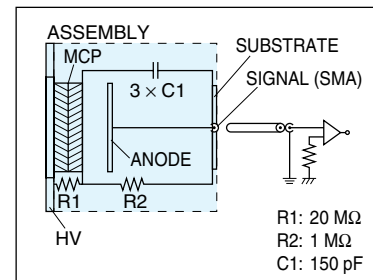
OUTPUT WAVELENGTH (F12334-11)



DIMENSIONAL OUTLINES (Unit: mm)



BLOCK DIAGRAM



	F12334-11	F12395-11	F12396-11
A	20	27	42
B	36	40	51
C	46	51	62
D	54	61	72
E	30	30	40
F	36	40	51
G	38	41	52

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